

CLAIMS

What is claimed is:

1. A method for servicing a printhead, the method comprising:
moving the printhead along a path away from a printing position adjacent a drum rotatable about a rotation axis to a service position away from the drum, said path orthogonal to said rotation axis;
conducting a service operation on the printhead at the service position;
moving the printhead back to the printing position to reposition the printhead adjacent the drum.
2. The method of Claim 1, wherein said moving the printhead away from the printing position comprises:
moving the printhead in a rotational path.
3. The method of Claim 1, wherein said moving the printhead away from the printing position comprises:
moving the printhead along a linear path.
4. The method of Claim 1, wherein said conducting said service operation comprises any of wiping, capping, spitting or drop detection functions.
5. The method of Claim 1, wherein said conducting said service operation comprises:
moving a service station from a rest position to a servicing position adjacent the printhead.
6. The method of Claim 1, wherein said moving the printhead along the path back to the printing position includes engaging a fixed registration

surface with a datum to accurately position the printhead at the printing position.

7. A method for servicing a printhead, the method comprising:

moving the printhead along an arc-shaped path away from a printing position adjacent a drum rotatable about a rotation axis to a service position away from the drum;

conducting a service operation on the printhead at the service position;

moving the printhead back to the printing position to reposition the printhead adjacent the drum.

8. The method of Claim 7, wherein said moving the printhead along the path back to the printing position includes engaging a fixed registration surface with a datum to accurately position the printhead at the printing position.

9. A drum printer, comprising:

a rotatable drum having a print medium supporting surface and mounted for rotation about a rotation axis;

a printhead disposed adjacent the supporting surface, the printhead mounted on a print bar support structure; and

an actuator for moving the print bar support structure along a path orthogonal to said rotation axis between a printing position and a service position

10. The printer of Claim 9, wherein the print bar comprises a page wide array of printheads including said printhead.

11. The printer of Claim 9, wherein said printhead is an inkjet printhead comprising an array of fluid ejecting nozzles.

12. The printer of Claim 11, wherein the printhead nozzle array is positioned adjacent to the surface of the drum in the printing position to provide high print quality of the printed output.

13. The printer of Claim 9, wherein said print bar frame structure is pivotable for rotational movement about a pivot axis, and said path is an arc.

14. The printer of Claim 13, wherein said pivot axis is parallel to said rotation axis.

15. The printer of Claim 9, wherein said path is a linear path.

16. The printer of Claim 9, further comprising a plurality of datums for accurately registering the frame structure at the printing position.

17. The printer of Claim 9, further comprising a service station for performing a service function on the printhead at the service position.

18. A drum printer, comprising:
a rotatable drum having a print medium supporting surface;
a printhead disposed adjacent the supporting surface, the printhead mounted on a print bar support structure; and
an actuator for moving the print bar support structure along an arc-shaped path between a printing position and a service position.

19. The printer of Claim 18, wherein said print bar frame structure is pivotable for rotational movement about a pivot axis.

20. The printer of Claim 19, wherein said pivot axis is parallel to said rotation axis.

21. A method for servicing a plurality of print bars, the method comprising:

moving the plurality of print bars along a path away from a printing position to a service position away from the surface of a drum, each print bar having a page wide array of printheads thereon;

conducting a service operation on the plurality of print bars at the service position;

moving the plurality of print bars along the path back to the printing position to accurately reposition the print bars for printing operations.

22. The method of Claim 21, wherein said moving the plurality of print bars away from the printing position comprises:

moving the plurality of print bars in a rotational path.

23. The method of Claim 21, wherein said moving the plurality of print bars away from the printing position comprises:

moving the plurality of print bars along a linear path.

24. The method of Claim 21, wherein said conducting said service operation comprises any of wiping, capping, spitting or drop detection functions.

25. The method of Claim 21, wherein said conducting said service operation comprises:

moving a service station from a rest position to a servicing position adjacent the plurality of print bars.

26. The method of Claim 21, wherein said moving the plurality of print bars along the path back to the printing position includes engaging a fixed registration surface with a datum to accurately position the plurality of print bars at the printing position.

27. A drum printer, comprising:
a rotatable drum having a print medium supporting surface;
a plurality of print bars disposed adjacent the supporting surface, the print bars mounted on a print bar support structure;
an actuator for moving the print bar support structure along a path between a printing position and a service position.

28. The printer of Claim 27, wherein each print bar comprises a page wide array of printheads.

29. The printer of Claim 27, wherein each print bar comprises an inkjet printhead comprising an array of fluid ejecting nozzles.

30. The printer of Claim 29, wherein the printhead nozzle array is positioned adjacent to the surface of the drum in the printing position to provide high print quality of the printed output.

31. The printer of Claim 27, wherein said print bar frame structure is pivoted for rotational movement about a pivot axis, and said path is an arc.

32. The printer of Claim 31, wherein said pivot axis is parallel to an axis of rotation of said drum.

33. The printer of Claim 27, wherein said path is a linear path.

34. The printer of Claim 27, further comprising a plurality of datums for accurately registering the frame structure at the printing position.

35. The printer of Claim 27, further comprising a service station for performing service functions on the print bars at the service position.

36. The printer of Claim 27, wherein said path is orthogonal to an axis of rotation of said drum.

37. A drum printer, comprising:

- a rotatable drum having a print medium supporting surface;

- a first set and a second set of print bars disposed adjacent the supporting surface;

- the first set mounted on a first print bar support structure for movement along a first linear constrained path;

- the second set mounted on a second print bar support structure for movement along a second linear constrained path;

- a first actuator for moving the first print bar support structure along said first constrained path between a first set printing position and a first set service position;

- a second actuator for moving the second print bar support structure along said second constrained path between a second set printing position and a second set service position.

38. The printer of Claim 37, further comprising:

- a first service station for performing service functions on the first set of print bars at the first service position;

- a second service station for performing service functions on the second set of print bars at the second service position.

39. The printer of Claim 37, wherein each print bar comprises a page wide array of printheads.

40. The printer of Claim 37, wherein each print bar comprises an inkjet printhead comprising an array of fluid ejecting nozzles.

41. The printer of Claim 40, wherein each array of fluid ejecting nozzles is positioned adjacent to the surface of the drum in the printing position to provide high print quality of the printed output.

42. A drum printer, comprising:

a rotatable drum having a print medium supporting surface and mounted for rotation about an axis;

a print bar having an array of fluid ejecting nozzles mounted thereon;

print bar support means for supporting the print bar at a print position adjacent the surface at a printing position and at a service position

means for moving the print bar support means along a path orthogonal to said axis, between the printing position and the service position.

43. The printer of Claim 42, wherein said array is a page wide array of printheads.

44. The printer of Claim 42, wherein the print bar comprises an inkjet printhead comprising an array of fluid ejecting nozzles.

45. The printer of Claim 44, wherein the printhead nozzle array is positioned adjacent to the surface of the drum in the printing position to provide high print quality of the printed output.

46. The printer of Claim 42, wherein said print bar support means is pivoted for rotational movement about a pivot axis, and said path is an arc.

47. The printer of Claim 46, wherein said pivot axis is parallel to an axis of rotation of said drum.

48. The printer of Claim 42, wherein said path is a linear path.

49. The printer of Claim 42, further comprising datum means for accurately registering the frame structure at the printing position.

50. The printer of Claim 42, further comprising a service station for performing service functions on the print bars at the service position.

51. A method for servicing print bars, the method comprising:

moving a first set of the print bars in a first direction away from a first printing position to a first service position away from the surface of a drum, each print bar having a page wide array of printheads thereon;

moving a second set of the print bars in a second direction which is opposite said first direction, from a second printing position to a second service position;

conducting a service operation on the first set and the second set of print bars at the respective first and second service positions;

moving the first set and the second sets of print bars back to the respective first and second printing positions to accurately reposition the print bars for printing operations.

52. The method of Claim 51, wherein said moving the first set of print bars away from the first printing position comprises moving the first set along a first linear path, and said moving the second set of print bars away from the second printing position comprises moving the second set along a second linear path.

53. The method of Claim 51, wherein said moving the first set and the second sets of print bars back to the respective first and second printing positions includes engaging respective first and second fixed datums with respective registration surfaces.